Bio-fuel project

*1341. SHRI PREM CHAND GUPTA: Will the Minister of AGRICULTURE be pleased to state:

(a) whether it is a fact that after pushing ethanol doped petrol, Government are now keen on setting up another bio-fuel project costing Rs. 1430 crore for bio-diesel production from Jatropha seeds, plants of which will cover rain-fed and drier regions across eight States in the country; and

(b) if so, what are the details of this scheme and the benefit that would accrue from it in terms of employment and on the environment?

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI HUKUMDEO NARAYAN YADAV): (a) Yes, Sir.

(b) The details of the scheme and the benefits that would accrue in terms of employment etc. are as under:

(i) Plantation of Jatropha in 50000 ha in each of the eight states *viz.* Andhra Pradesh, Karnataka, Gujarat, Rajasthan, Madhya Pradesh, Maharashtra, Chhattisgarh and Uttar Pradesh with an outlay of Rs. 1200 crores.

(ii) Establishment of 160 seed procurement centres including installation of oil expellers, transesterification units for quality collection of seed, oil extraction etc. with an outlay of Rs. 160 crores.

(iii) Capacity building programme to motivate the farmers to take up Jatropha plantation with an outlay of Rs. 70 crores.

(iv) The investment of Rs. 1430 crore for Jatropha plantation in about 4 lakh ha. area will yield about 6 lakh tonnes bio-diesel valued at Rs. 1020 crore per annum for around 45 years after the stabilization of the yield (after 4-5 years). This adds up to Rs. 45,900 crores after the life of the plantation.

(v) The project would generate 1244 lakh mandays in rural areas per year for four years. Additionally, for seed

collection, there will be labour requirement of 160 lakh mandays per annum. Besides, providing green coverage to large wasteland areas, it will also help in providing locally available clean energy to catalyze socio-economic development process in rural India.

Cloud seeding

1342. SHRI H.K. JAVARE GOWDA: Will the Minister of AGRICULTURE be pleased to state:

(a) whether the country has made/developed technology of cloud seeding to overcome the drought situation in the country;

(b) if so, what would be the cost for cloud seeding in a season;

(c) whether Karnataka Government has made efforts in the direction of cloud seeding; if so, the amount spent so far; and

(d) whether Centre has assisted Karnataka financially; if so, the details thereof?

THE MINISTER. OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI HUKUMDEO NARAYAN YADAV): (a) No technology is available in the country for drought alleviation through cloud seeding when the drought is widespread. However, some research and development efforts have been made in the past to enhance rainfall through cloud seeding over small areas.

(b) The Indian Institute of Tropical Meterology (HTM), Pune carried out cloud seeding experiments in Maharashtra State during 11 summer monsoon seasons between 1973 and 1986 at a cost of Rs. 58 lakhs.

(c) and (d) The Government of Karnataka invited short term Global Tenders for cloud seeding. The cost of cloud seeding operation quoted by a US based agency was US$ 12,17,335 (approximately Rs. 5.68 crores) excluding the cost of consumables.

The Centre has not provided any financial assistance to Karnataka in this regard. This project is financed by the State Government of Karnataka.